

September 30, 1953

Charles F. Geschickter, M. D., Director
Geschickter Fund for Medical Research, Inc.
1834 Connecticut Avenue, N. W.
Washington 9, D. C.

Dear Dr. Geschickter:

Enclosed please find an outline of a proposed study of the metabolism of d-lysergic acid Diethylamide. This outline is couched in general terms because all of us feel that as we open the investigation we would like to have our objectives in general terms rather than in specific ones. If it is important to you, [redacted] can write out a detailed statement of the first steps that he is going to take with the aid of [redacted], and I can give you a detailed description of the first experiment we would like to do in the metabolic program.

One important question is the source of lysergic acid and derivatives. Do you have any suggestions as to people we might write to or companies that would be interested in collaborating with us, at least to the extent of providing compounds?

Another problem has to do with the report system. Our first preference would be to submit an annual report. It seems to us that such a study as we are proposing should not be undertaken for a period of less than three years. Is it possible that you or someone from your office could visit us so that we would have a better idea of how we are expected to furnish information.

One man is not mentioned in the outline. This is [redacted], our Professor of Psychiatry. He has a lively interest in the possibilities that may grow out of this study as far as clinical applications go. He wishes to sit in on our conferences as the program develops.

Another matter has to do with University overhead. Do you have a policy already formulated? [redacted], Co-ordinator of Sponsored Research, has given us the following statement to send you:

"The overhead cost of sponsored research at the [redacted] is computed each year for both the College of Arts and Science (organic chemistry) and the Medical School (pharmacology). On cost-reimbursement contracts, the overhead is expressed as a percentage of salaries and wages and the rates for the calendar year 1953 are 49% in the Arts College and 42.77% in the Medical School. On grants-in-aid from foundations, national societies and organizations, it is the policy of the University to accept the established overhead policy of the granting agency. When such policy provides less than the University's overhead cost a direct charge is made to the grant for the University's cost of social security, group insurance and retirement benefits. These costs are determined each year and expressed as a percentage of salaries and wages; for the calendar year 1953 the rate in the Arts College is 5.50% and in the Medical School 3.55%."

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DATE: JAN 2002

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SENSITIVE INTELLIGENCE
SOURCES AND METHODS INVOLVED

-2-

Charles F. Geschickter, M. D., Director

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Since the study of the metabolism of LSD implies to me opening the possibility of developing a psycho-therapeutic agent for mental disease, I can assure you that the problem seems to me to have a first-rank importance. I can assure you that it is with keen anticipation that this program will be undertaken by our group.

There may be a number of aspects about this proposal that need to be discussed. I expect to be in Washington briefly within the next few weeks. I hope I have the opportunity of talking with you if you so desire.

Yours very truly,

[REDACTED]

Professor of Pharmacology
and Toxicology

[REDACTED]

Enclosure

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Downgraded to: ~~CONFIDENTIAL~~ ~~TOP SECRET~~
by authority of: [REDACTED]
date: June 1977 [REDACTED] Security Information

E2 IMPDET; CL BY [REDACTED]

DRAFT [REDACTED] 111
22 October 1953

MEMORANDUM FOR THE RECORD

SUBJECT: Project MKULTRA, Subproject 17

1. The scope of this research program is intended to cover work to be done with LSD and related compounds by [REDACTED] at [REDACTED] for the period ending 31 October 1954. The project will be handled through the Geschickter Foundation for cut-out and cover purposes. The proposal from [REDACTED] to the Geschickter Foundation is attached to this memorandum.
2. The general object of this project is aimed at elucidation of the site and mechanism of action of LSD by the use of isotopically tagged molecules. At least three major advantages will accrue from such knowledge. First, such data should greatly facilitate the development of a suitable antidote for LSD; in addition, they should make it possible to design new compounds having like but even more bizarre activities; and finally, fundamental knowledge of the psychotherapeutic action of drugs will be made available for future development.
3. [REDACTED] has available to him at [REDACTED] a highly competent group of scientists of international reputation encompassing the fields of physical and organic chemistry in addition to those of medicine and psychology. He plans to use these people as informal consultants in the work.
4. The funds for this project include \$7,000.00 for the synthetic work on tagged LSD, \$18,500.00 for the metabolic studies on such compounds, \$2,550.00 for the 10% University overhead charge, and \$1,122.00 for a 4% service charge by the Geschickter Foundation. Therefore, the total cost of this investigation will not exceed \$29,172.00 for the period ending 31 October 1954.
5. This project will be completely unclassified after it leaves the Geschickter Foundation.

Downgraded to: ~~CONFIDENTIAL~~
by authority of: [REDACTED]
date: June 1977 [REDACTED]

E2 IMPDET; CL BY [REDACTED]

[REDACTED]
[REDACTED] Division, TSS

~~TOP SECRET~~
Security Information

~~SECRET~~
SECURITY INFORMATION

22 October 1953

MEMORANDUM FOR: COMPTROLLER
ATTENTION: Finance Division
SUBJECT: Project MKULTRA, Subproject 17

Under the authority granted in the memorandum dated 13 April 1953 from the DCI to the DD/A, and the further authority granted in the memorandum dated 17 April 1953 from the DD/A to the Comptroller on the subject, "DD/P-TSS Project MKULTRA", and the memorandum dated 19 June 1953, from the DCI to the DD/A extending the authority to cover Fiscal Year 1954, Subproject 17 has been approved, and \$29,172.00 of the over-all Project MKULTRA funds have been obligated to cover the subproject's expenses.

SECRET COPIES
Chief
Division, TSS

PROGRAM APPROVED AND
RECOMMENDED:

APPROVED FOR OBLIGATION
OF FUNDS:

Original signed by
WILLIS A. GIBBONS

Research Chairman

Research Director

Date: 23 1953

Date: 15

Distribution:

Addressees - Orig. & 2
Exec. Sec'y., Res. M. - 1
TSS/Budget - 1 (4-2302-10) ✓
TSS/Registry - 1
TSS/ - 2

~~SECRET~~
SECURITY INFORMATION

OCT 28 ENT'D

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31 *Rush*

3 yr program
from 1967
change in pattern

PROPOSED BUDGETS

Synthetic Program

[REDACTED]

\$7,000 With advice
& consultation
with [REDACTED]

Salary for [REDACTED] post-
doctoral fellow in chemistry
(from University of [REDACTED]) \$4,500
Graduate student 1,500
Expenses 1,000

Metabolism Program

\$18,500

Salaries
[REDACTED] (director of program) \$5,500
[REDACTED] (part-time) 3,000
[REDACTED] biophysical parts
of investigation) 500
Apparatus 5,000
Licenses 2,000
Travel 500
Contingency 2,000

\$25,500 plus
allowance for university overhead

// 25,500.00 grant
25,500.00 10% univ OH
11,220.00 4% service charge
29,772.00 total for 1st yr

1070

Outline of Proposed Study of the Metabolism of d-Lysergic Acid
Diethylamid.

✓ Studies of the metabolism of d-lysergic acid diethylamid (LSD) are complicated by the fact that the effective doses are in microgram quantities. Tagging the molecule with radioactive or with stable isotopes therefore assumes an extraordinary importance since only by this means is there any likelihood of obtaining information in a relatively short time. The over-all plan will be to incorporate into the molecule suitable atoms to serve as tags and to administer it to experimental animals in whose tissues the tagged atoms can be identified after various time periods. By combining several methods of tagging, deductions can be made as to the fate of the intact molecule or certain fragments of it. This approach requires the coordinated work of a team representing experts from a number of fields. We are fortunate enough to have such a group of trained individuals representing pharmacology, biochemistry, synthetic organic chemistry, and biophysics. The individuals will be named in the sections below in which the activities of the first year of the program are described in broad terms.

✓ Synthesis of LSD and related compounds. The chemical nature of the compound makes it a difficult one to work with. Knowledge of the metabolism of LSD may be gained either by studies of this molecule suitably tagged or by studies of lysergic acid or various derivatives in which isotopes have been introduced at proven locations. Since the structure

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of lysergic acid has not yet been completely established work will be carried forward simultaneously on the preparation of tagged molecules and on the total synthesis.

Several isotopes show promise as possible tags for use in the LSD molecule. Radiocarbon (carbon 14) and tritium (hydrogen 3) are of exceptional interest because these two elements make up a large part of the molecule. Both can be obtained with very high specific activity and therefore may be able to supply sufficient radioactivity so that microgram quantities can be traced in the body. Heavy nitrogen (nitrogen 15) has many advantages; however, as a ring element, synthesizing it into the molecule will be an exceptionally difficult feat.

The synthetic chemical program is under the direction of [REDACTED] [REDACTED] Lecturer in Chemistry. He will be assisted by [REDACTED] [REDACTED] post doctoral fellow in chemistry coming this fall from the University of Montreal and by a graduate student to be appointed.

X The budget for the synthetic program totals \$7000 and is divided as follows: Salary for [REDACTED] \$4500; stipend for graduate student, \$1500; expenses, \$1000.

Metabolism of LSD and related compounds. The problem is to discover what the body does with LSD. The percentages of a dose of LSD retained in many other organs and tissues of the body will be measured. The pattern of excretion is important. Information as to what chemical alterations are induced by the metabolic activity of cells in the central

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nervous system or in the liver or in the muscle will be sought. Because it is possible that the clinically active form is not the molecule that is administered, a search will be made for fragments of the molecule and then if possible a basic body of information will be developed about the metabolism of lysergic acid, perhaps by chemical studies of related molecules. Microtechniques such as paper chromatography may prove to be important. The use of histological radioteutographs should be investigated. Because of the ability of this molecule to produce schizoprenic-like disorganization in normal humans, the concentration of LSD in the central nervous system will of course have a prime interest. One task will be to discover whether concentration differences exist in various parts of the central nervous system.

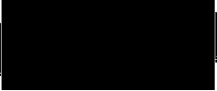
The metabolic program will be carried out by [REDACTED] a junior scientist in pharmacology. [REDACTED] Assistant Professor of Pharmacology, will be available part-time to bring to the problem his broad training and special experience in the pharmacology of the central and peripheral nervous system. [REDACTED] Assistant Professor of Biophysics (Pharmacology), who has been active in tracer research here for fifteen years, is to assist with the biophysical parts of the investigation; this may involve special counters for tritium and for carbon 14.

The total budget for the metabolism program is \$18,500 and is allotted as follows: Salaries, [REDACTED] \$5500, [REDACTED] \$3000, [REDACTED] \$900; apparatus, \$5000; expenses, \$2000; travel, \$500; contingency, \$2000.

The over-all budget is thus \$25,500 plus the allowance for university overhead.

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Financial Statement for the LSD Project (Geschickter Grant) as of March 2, 1954.

	<u>Total Expenditures</u>	<u>Total Budget</u>	<u>Amount Remaining</u>
Salaries	2,033.32	9,000.00	6,966.68
Permanent Equipment	1,921.25	5,000.00	3,078.75
Materials and Supplies	137.09	2,000.00	1,862.91
Travel		500.00	500.00
Overhead	2,550.00	2,550.00	
Contingencies	450.00	2,000.00	1,550.00
	1,136.31	7,000.00	5,863.69
TOTAL	8,227.97	28,050.00	19,822.03

Total Received to date

7,012.50

Expenditures to date

8,227.97

BALANCE

1,215.47 (debit)

Have received 2 payments since this was made